

## Product datasheet for RC219020

### CSB (ERCC6) (NM\_000124) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** CSB (ERCC6) (NM\_000124) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** CSB  
**Synonyms:** ARMD5; CKN2; COFS; COFS1; CSB; CSB-PGBD3; POF11; RAD26; UVSS1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC219020 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAAATGAGGGAATCCCCACTCAAGTCAAACCTCAGGAGCAAGACTGTTTACAGAGTCAACCTGTCA  
GTAATAATGAAGAAATGGCAATCAAGCAAGAAAGTGGTGGTGATGGGGAGGTGGAGGAGTACCTGTCCTT  
TCGTTCTGTGGGTGACGGGCTGTCCACCTCTGCTGTGGGGTGCATCAGCAGCTCCGAGGAGGGGCCA  
GCCCTGCTGCACATCGACCGACATCAGATCCAGGCAGTAGAGCCTAGCGCCAGGCCCTTGAGCTGCAGG  
GTTTGGGTGTGGACGTCTATGACCAGGACGTGCTGGAACAGGGAGTGCTTCAGCAGTGGACAATGCCAT  
CCATGAGGCCAGCCGTGCCTCCCAGCTCGTTGACGTGGAGAAGGAGTATCGGTCCGGTCTGGATGACCTC  
ACGTGATGTACGACATCCCTAAGGCAAATCAATAAAATTATTGAACAGCTTAGCCCTCAAGCTGCCACCA  
GCAGAGACATCAACAGGAAACTAGATTCTGTAACACGACAGAAGTATAATAAGGAACAACAGCTAAAAAA  
GATCACTGCAAAAACAAAGCATCTCCAGGCCATCCTTGGAGGAGCAGAGGTGAAAATTGAACTAGATCAC  
GCCAGTCTGGAGGAGGATGCAGAGCCGGGGCCATCCAGTCTTGGCAGCATGCTCATGCCTGTCCAGGAGA  
CTGCCTGGGAAGAGCTCATCCGCACTGGCCAGATGACACCTTTTGGTACCCAGATCCCTCAGAAACAGGA  
GAAAAAGCCAGAAAAATCATGCTTAATGAAGCATCAGGCTTCGAAAAGTATTTGGCAGATCAAGCAAAA  
CTGTCTTTTGAAGGAAGAAGCAAGTTGTAATAAAAGAGCAGCTAGAAAAGCTCCAGCCCAAGTCACGC  
CTCCAGCCCCAGTGCAAAATAAAAACAAACCAACAAGAAAGCCAGAGTTCTGTCCAAAAAGAGGAGCG  
TTTGAAAAGCACATCAAGAAACTCCAGAAGAGGGCTTTGCAGTTCAGGGGAAAGTGGGATTGCCAAAG  
GCAAGGAGACCTTGGGAGTCAAGATGAGGCCAGAGGCAGAGGGAGACTCTGAGGGTGAAGAGTCTGAGT  
ATTTCCACAGAGGAGGAGGAAGAGGAGGAAGATGACGAGGTGGAGGGGCAGAGGCGGACCTGTCTGG  
AGATGGTACTGACTATGAGCTGAAGCCTCTGCCAAGGGCGGAAACGGCAGAAGAAAGTCCAGTGCAG  
GAGATTGATGACTTTTTCCCAAGTTCTGGGAAGAAGCTGAAGCTGCTTCTGTAGGAGAAGGAGGAG  
GAGGAGGTGGAAAGTGGGAAGATACCGAGATGATGGAGATGAAGATTATAAGCAGCGGTTAAGGAG  
ATGGAATAAACTGAGACTGCAGGACAAAGAGAAACGTCTGAAGCTGGAGGACGATTCTGAGGAAAGTAT



[View online »](#)

GCTGAATTTGACGAAGGTTTTAAAGTGCCAGGTTTTCTGTTCAAAAAGCTTTTTAAGTACCAGCAGACAG  
GTGTTAGGTGGCTGTGGGAATTGCACTGCCAGCAGGCAGGAGGAATTCTGGGAGATGAAATGGGATTGGG  
CAAGACCATCCAGATAATTGCCTTCTTGGCAGGTCTGAGCTACAGCAAGATCAGGACTCGTGGTTCAAAT  
TACAGGTTTGAGGGGTTGGGTCCAACGTGAATTGTCTGTCCAACAACAGTGATGCATCAGTGGGTGAAGG  
AATTTACACGTGGTGGCCTCCGTTCCAGAGTGGCAATTCTACATGAAACCGGTTCCCTATACCCACAAAA  
GGAGAACTAATTCGAGATGTTGCTCATTGTCTGGAATTTTGATCACATCTTACTCTACATTGATTG  
ATGCAGGATGACATTAGCAGGTATGACTGGCACTATGTGATCTTGACGAAGGACACAAAATTCGAAATG  
CAAATGCTGCTGTACCCTTGCTTGCAAACAGTTTTGCACCCCTCATCGGATCATTCTGTCTGGCTCACC  
GATGCAAAATAACCTCCGAGAGCTGTGGTGCCTTTGACTTCATCTTCCCGGAAAGTTAGGCACGTTG  
CCTGTGTTTATGGAGCAGTTCTCCGTCCCACATCACCATGGGGGATATTCAAATGCTTCCCAGTACAGG  
TCAAACTGCTTACAAGTGTGCATGTGTCTTACGAGATACCATAAATCCATACCTACTGCGGAGAATGAA  
GTCAGATGTCAAGATGAGCCTTTCTTGGCAGATAAAAAAGAACAGGTCTATTTTGGCGTCTTACAGAT  
GAGCAGCATAAAGTCTACCAAAATTTCTGTGATCCAAAGAAGTTTACAGGATTCTCAATGGAGAGATGC  
AGATTTTCTCCGACTTATAGCCCTAAGAAAAATTTGCAACCACCCTGATCTTTTTCTGGAGGTCCCAA  
GAATCTCAAAGGTCTTCTGATGATGAAGTGAAGAAGATCAGTTTGGGTACTGGAACGTTCTGGGAAA  
ATGATTGTTGTTGAGTCTTTGTTGAAAATATGGCAACAAGCAGGGTCAGCGAGATTGCTGTTTTCTCAGT  
CAAGGCAGATGCTGGACATACTTGAAGTATTCCTTAGAGCCAAAAGTATACCTATCTCAAGATGGATGG  
TACCACTACAATAGCTTCAAGACAGCCACTGATTACGAGATACAATGAGGACACATCCATATTTGTGTTT  
CTTCTGACCACGCGGGTGGGTGGCTTAGGTGTCAACCTGACGGGGGCAACAGAGTTGTCATCTATGACC  
CAGACTGGAACCAAGCAGGACACGCAGGCCCGGGAGCGAGCATGGAGAATAGGCCAGAAGAAGCAAGT  
GACTGTGTACAGGCTCCTGACTGCGGGCACCATTGAAGAAAAGATCTACCACCGACAAATCTTCAAGCAG  
TTTTTGACAAATAGAGTGCTAAAAGACCCAAAACAAAGGCGGTTTTTCAAATCCAATGATCTCTATGAGC  
TATTTACTCTGACTAGTCTGATGCATCCCAGGCACTGAAACAAGTGCAATTTTTGCGGAATGGATG  
AGATGTTACAGACCCCAATGCCATCTAAAAGAAGGATTCCACCAGCCTTTGGAGCAGACCATGATGTT  
CCAAAACGCAAGAAGTTCCTGCTTCTAACATATCTGTAATGATGCCACATCATCTGAAGAGAAATCTG  
AGGCTAAAGGAGCTGAAGTAAATGCAGTAACTTCTAATCGAAGTATGCTTTGAAAGATGACCTCACAT  
GAGTAGTAATGTAAGTCAATGATAGGCTTGGAGAAGAGACAAATGCAGTATCTGGACCAGAAGAGTTG  
TCAGTGATTAGTGGAAATGGGAATGTTCAAATCTTCCAGAACAGGCAAACTTCTATGCCATCTGGTG  
ATGAAAGCATTGATGAAAAGTTAGGTCTTTCTTACAAAAGAGAAAGACCCAGCCAGGCTCAAACAGAAGC  
TTTTTGGGAGAATAAACAATGGAAAATAATTTTTATAAGCACAAGTCAAAAACAAAACATCATAGTGTG  
GCAGAAGAAGAGACCCTGGAGAAACATCTGAGACCAAGCAAAAGCCTAAGAAGTCTAAGCATTGCAGAG  
ACGCCAAGTTTGAAGGAAGTCCGAAATCCACACCTGGTGAAGAAAAGGCGTTACCAGAAGCAAGACAGTGA  
AAACAAGAGTGAGGCAAGGAACAGAGCAATGACGATTATGTTTTGAAAAGCTTTTCAAAAATCAGTT  
GGCGTGCACAGTGTGATGAAGCAGATGCCATCATGGATGGAGCCAGCCAGATTATGACTGGTGGAGG  
CAGAAGCAACCGAGTGGCCAGGATGCCCCGAAAGCACTGAGGCTCTCTCGTCAGCGGTGTCTGGGAGC  
AGTGTCTGGTGTCCACCTGGACTGGCCACAGGGGATTTCTGGTGCACCAGCAGGAAAAAAGAGTAGA  
TTTGGTAAGAAAAGGAATTCTAAGTCTCTGTGCAGCATCCTTCATCAACATCTCCAACAGAGAAGTGCC  
AGGATGGCATCATGAAAAGGAGGGAAAAGATAATGTCCCTGAGCATTAGTGGAAAGAGCAGAAGATGC  
AGACTTTCATCCGGGCCCTCGTTCTCCTCACTCTTGGCTAAAATGAGAGCTAGAAACACCTGATT  
CTGCCAGAGCGTTTAGAAAAGTAAAGCGGGCACCTGCAGGAAGCTTCTGCCCTGCTGCCACACAGAAC  
ACGATGACCTTCTGGTGGAGATGAGAACTTCTCGCTTTCCAGGCCACACTGATGGCCAGGCCAGCAC  
CAGGGAGATACTGCAGGAGTTTGAATCCAAGTTATCTGCATCACAGTCTTGTGTCTTCCGAGAACTATTG  
AGAAATCTGTGCACTTTCCATAGAAGTCTGGTGGTGAAGGAATTTGAAAAGTCAAGCCAGAATACTGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC219020 protein sequence  
 Red=Cloning site Green=Tags(s)

```

MPNEGIPHSSQTQEQDCLSQSPVSNNEEMAIKQESGGDGEVEEYLSFRSVGDGLSTSAVGCASAAPRRGP
ALLHIDRHQIQAVEPSAQALELQGLGVDVYDQDVL EQGLVQVDNAIHEASRASQLVDVEKEYRSVLDL
TSCTTSLRQINKIEQLSPQAATSRDINRKLDSVKRQKYNKEQQLKKITAKQKHLQAILGGAEVKIELDH
ASLEEDAEPGPSSLSGMLMPVQETAWEELIRTGQMTFPFGTQIPQKQEKKPRKIMLNEASGFKEYLADQAK
LSFERKKQGCNKRAARKAPAVTPPAPVQNKPKPKARVLSKKEERLKKHKIKLQKRALQFQGVKGLPK
ARRPWESDMRPEAEGDSEGESEYFPTEEEEEEDDEVEGAEADLSGDGTDYELKPLPKGGKRQKKVPVQ
EIDDDFFPSSGEEAEASVGEVGGGGGRKVGRYRDDGDEDYKQRLRRWNKLRQLDKEKRLKLEDDSEESD
AEFDEGFKVPGFLFKLKYQQTGVRWLWELHCQQAGGILGDEMGLGKTIQIIAFLAGLSYSKIRTRGSN
YRFEGLPTVIVCPTTVMHQVWKEFHTWPPFRVAILHETGSYTHKKEKLRDVAHCHGILITSYSYIRL
MQDDISRYDWHYVILDEGHKIRNPAAVTLACKQFCTPHRIILSGSPMQNNLRELWSLDFDFIPGKLGTL
PVFMEQFSVPITMGYSNASPVQVKTAYKACVLRDITINPYLLRRMKSDVKMSLSLPDKNEQVLFCLTD
EQHKVYQNFVDSKEVYRILNGEMQIFSGLIARLKI CNHPDLFSGGPKNLKGLPDDELEEDQFGYWKRSRK
MIVVESLLKIWHKQQRVLLFSQSRQMLDILEVFLRAQKYTYLKM DGTTT IASRPLITRYNEDTSIFVF
LLTTRVGGGLGVNLTGANRVVIYDPDWNPSTDTQARERAWRIGQKKQVTVYRLLTAGTIEEKIYHRQIFKQ
FLTNRVLKDPKQRRFFKSNLDYELFTL TSPDASQSTETS AIFAGT GSDVQTPKCHLKRRIPPAFGADHDV
PKRKKFPASNISVNDATSSSEKSEAKGAEVNAVTSNRSDPLKDDPHMSSNVTSDNRLGEETNAVSGPEEL
SVISGNGECSNSSGTGKTSMPSGDESIDEKLGLSYKRERPSQAQTEAFWENKQMNENFYKHKSKTKHHSV
AEEETLEKHLRPKQPKNSKHCRDAKFEGTRIPHLVKKRRYQKQDSENKSEAKEQSNDDYVLEKLFKKS
GVHSVMKHDAIMDGASPDYVLEAEANRVAQDAPKALRLSRQRCLGAVSGVPTWTGHRGISGAPAGKKS
FGKKRNSNF SVQHPSSSTPTEKCDGIMKKEGKDNVPEHFSGRAEDADSSSGPLASSLLAKMRARNHLI
LPERLESESGHLQEASALLPTEHDDL VEMRNF IAFQAHTDGGQASTREILQEFESKLSASQSCVFRELL
RNLCTFHRTSGGEGIWKLKPEYC
  
```

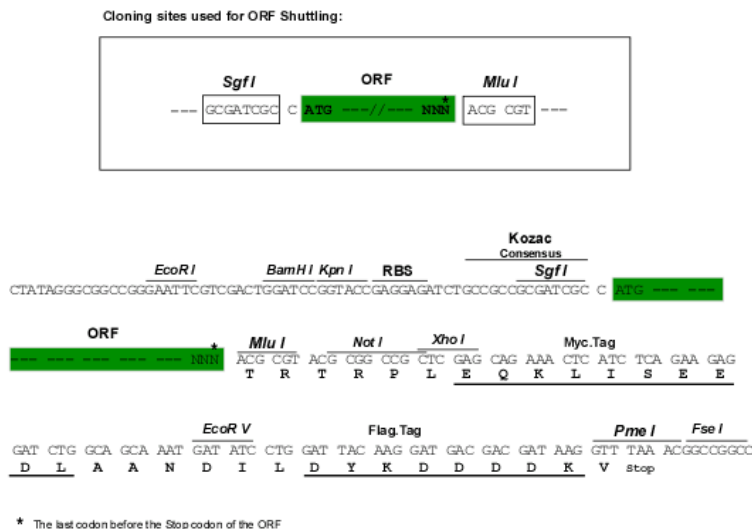
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6716\\_g09.zip](https://cdn.origene.com/chromatograms/mk6716_g09.zip)

**Restriction Sites:**

SgfI-MluI

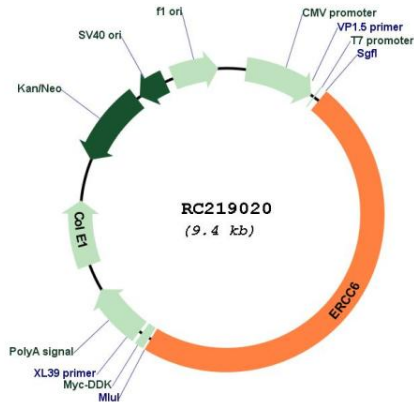
**Cloning Scheme:**

**ACCN:**

NM\_000124

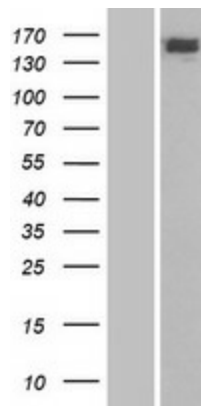
<b>ORF Size:</b>	4479 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_000124.4</a>
<b>RefSeq Size:</b>	8993 bp
<b>RefSeq ORF:</b>	4482 bp
<b>Locus ID:</b>	2074
<b>UniProt ID:</b>	<a href="#">Q03468</a>
<b>Cytogenetics:</b>	10q11.23
<b>Domains:</b>	SNF2_N, DEAD, helicase_C
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Nucleotide excision repair
<b>MW:</b>	168.3 kDa

**Gene Summary:**

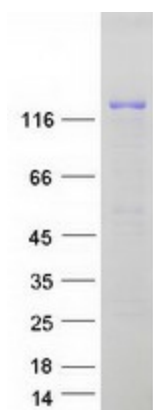
This gene encodes a DNA-binding protein that is important in transcription-coupled excision repair. The encoded protein has ATP-stimulated ATPase activity, interacts with several transcription and excision repair proteins, and may promote complex formation at DNA repair sites. Mutations in this gene are associated with Cockayne syndrome type B and cerebrooculofacioskeletal syndrome 1. Alternative splicing occurs between a splice site from exon 5 of this gene to the 3' splice site upstream of the open reading frame (ORF) of the adjacent gene, piggyback-derived-3 (GeneID:267004), which activates the alternative polyadenylation site downstream of the piggyback-derived-3 ORF. The resulting transcripts encode a fusion protein that shares sequence with the product of each individual gene. [provided by RefSeq, Mar 2016]

**Product images:**


Circular map for RC219020



Western blot validation of overexpression lysate (Cat# [LY424915]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219020 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERCC6 protein (Cat# [TP319020]). The protein was produced from HEK293T cells transfected with ERCC6 cDNA clone (Cat# RC219020) using MegaTran 2.0 (Cat# [TT210002]).